

REMARKS

Reconsideration and allowance of this application are respectfully requested. Claims 1-37 remain in the application and, as amended herein, are submitted for the Examiner's reconsideration.

In the Office Action, the Examiner rejected claims 1-37 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claims 1-37 have been amended to correct the informalities. It is therefore submitted that the claims are in full compliance with the requirements of 35 U.S.C. § 112, second paragraph.

Claims 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, and 33-37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Priem (U.S. Patent No. 5,577,232) in view of Solari (U.S. Patent No. 5,617,576). It is submitted, however, that the claims are patentably distinguishable over the references.

The Priem patent is concerned with enabling older versions of software to run on newer versions of hardware and with enabling older versions of hardware to run newer versions of software. A hardware device includes a hard wired register that stores the version number of that device and includes a rewriteable register that stores the version number of the hardware device for which the software was written. The software compares the version numbers stored in the two registers, and when the software determines that it is running on an older version of the hardware, *the software disables any software operations* that call hardware functions that cannot be carried out by the older version of the hardware, and the software emulates these functions. (See FIG. 2; col. 3, lns. 1-

9; col. 3, ln. 49 to col. 4, ln. 12; and col. 5, lns. 1-7.) The software does not request a change in the processing capability of the hardware.

Priem further describes that the hardware device includes circuitry that also compares the two version numbers stored in the two registers. When the hardware device determines that it is running an older version of the software, the hardware generates signals that disable certain hardware functions so that the hardware appears to the software to be the hardware version for which it was designed. (See FIG. 2; col. 4, lns. 19-32; and col. 4, lns. 55-63.) The hardware does not determine whether the software has requested a change in its processing capability. Moreover, the hardware determines which hardware functions are to be disabled based on the hardware version number associated with the software. The hardware does not change its processing capability based on a stored change parameter.

The Solari patent is concerned with slowing the execution of a microprocessor to permit the microprocessor to be compatible with older software versions. An execution speed controller monitors for a triggering event to occur that indicates that the microprocessor is running a section of code that should be slowed. The triggering event may be: (1) a call to an address space occupied by that section of code, (2) an interrupt request by a hardware resource that requires interrupt handling only when that section of code is running, or (3) a request to write to a particular register that was previously inserted into that section of the code. (See FIGS. 1-3; col. 1, lns. 11-15; col. 2, lns. 59-66; col. 5, lns. 37-42; and col. 6, lns. 25-49.) The software does not request a change of a processing capability of the microprocessor.

Solari also describes that when the triggering event occurs, the speed controller slows the microprocessor by

temporarily preventing the microprocessor from accessing the main memory or an internal cache memory. (See col. 2, lns. 63-66; and col. 6, lns. 9-10.) The speed controller does not change a value of a processing parameter based on a stored *change parameter* associated with the program.

Therefore, neither Priem nor Solari suggests:

determining means for determining whether a software program being executed by the information processing apparatus has requested a change of a processing capability of the information processing apparatus; and

adjusting means for changing a value of a processing parameter of the information processing apparatus based on a stored change parameter associated with the software program when said determining means determines that the software program has requested the change of the processing capability

as called for in claim 1.

It follows that neither Priem nor Solari, whether taken alone or in combination, discloses or suggests the emulation apparatus defined in claim 1. Claim 1 is therefore patentably distinct and unobvious over the references.

Claims 3, 5, 7, 9, 11, 13, and 15 depend from claim 1, and each further defines and limits the invention set out in the independent claim. It follows that each of claims 3, 5, 7, 9, 11, 13, and 15 likewise defines a combination that is patentably distinguishable over the cited references.

Further regarding claim 3, Priem describes that the determination of whether to modify the software or reconfigure the hardware is based on a *comparison of two version numbers*, and Solari describes that the determination of whether to slow the microprocessor is based on a *triggering event*. Neither reference discloses or suggests determining whether the processing capability is to be changed by identifying whether a

medium that stores the software program is intended for a host machine or for a subordinate machine.

Independent claim 17 is directed to an emulation apparatus and includes determining means and adjusting means having limitations similar to those recited in claim 1. Therefore, claim 17 is patentably distinguishable over Priem and Solari at least for the same reasons.

Claims 19, 21, 23, 25, 27, 29 and 31 each depend from claim 17 and are distinguishable over the references for at least the same reasons.

Additionally, claim 19 includes limitations similar to those set out in claim 3 and is further distinguishable over the cited art for at least the same reasons.

Independent claim 33 is concerned with an emulation part that includes:

means for reading, when a software program being executed by the information processing apparatus has requested a change of a processing capability of the information processing apparatus, contents of the request;

and further calls for:

means for changing a value of a processing parameter of the information processing apparatus based on the read change parameter.

As noted above regarding claim 1, neither Priem nor Solari discloses or suggests that a software program requests a change of a processing capability and neither reference suggests changing a value of a processing parameter based on a change parameter. Therefore, claim 33 is patentably distinguishable over Priem and Solari at least for the same reasons.

Independent claim 34 is directed to an emulation method that includes limitations similar to those set out in claim 1, and independent claim 35 relates to a recording medium

having a program recorded thereon for executing the method of claim 34. Therefore, claims 34 and 35 are each patentably distinguishable over Prelim and Solari for at least the same reasons.

Independent claim 36 describes a recording medium that includes:

a first area which is read by the information processing apparatus before execution of the software program and in which is recorded a type code indicating whether the software program is intended to be run on a host machine or on a subordinate machine and being used by the information processing apparatus to change its processing capability accordingly[.].

As described above regarding claim 3, Priem is concerned with changing the operation of the hardware or the operation of the software when the software is intended for a *different hardware version* than that of the hardware running the software. Priem is not concerned with whether the software program is intended for a *host machine* or for a *subordinate machine*. Further, Solari discloses slowing the microprocessor when executing a particular section of code and is not concerned with whether the software is intended for a host machine or for a subordinate machine.

Claim 36 further calls for:

a second area which is read by the information processing apparatus during execution of the software program and in which is recorded a change parameter which identifies a processing parameter of the information processing apparatus and which defines a change in the value of the processing parameter, the change parameter being read from said second area when the software program requests a change of the processing capability of the information processing apparatus.

For the reasons described above regarding claim 1, neither Priem nor Solari discloses or suggests a software program that

requests a change of the processing capability of the information processing apparatus.

It follows that neither Priem nor Solari, whether taken alone or in combination, discloses or suggests the recording medium defined in claim 36, and claim 36 is patentably distinct and unobvious of the references.

Independent claim 37 relates to a processor that executes a software program for carrying out an emulation method and has limitations similar to those set out in claim 1. Claim 37 is therefore patentably distinguishable over Priem and Solari for at least the same reasons.

The Examiner also rejected claims 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30 and 32 under 35 U.S.C. § 103(a) as being unpatentable over Priem and Solari as applied to claim 1 above and further in view of Miyamoto (U.S. Patent No. 6,132,315). It is submitted, however, that the claims are patentably distinguishable over the references.

Claims 2, 4, 6, 8, 10, 12, 14, and 16 depend from claim 1 and are distinguishable over Priem and Solari for at least the same reasons. Also, claims 18, 20, 22, 24, 26, 28, 30 and 32 depend from claim 17 and are distinguishable over the cited references at least for the same reasons.

The Miyamoto patent describes a pair of game machines in which backup data is generated by playing a game on a first machine, the backup data is supplied to a second game machine, and the second game machine executes a game using the backup data. (See Abstract; col. 1, lns. 7-14; and col. 10, lns. 17-34 and 50-53.) Miyamoto does not remedy the deficiencies of Priem and Solari that are described above regarding claims 1 and 17, and therefore claims 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30 and 32 are patentably distinguishable over the references at least for the same reasons.

Further regarding claims 2 and 18, Miyamoto merely describes that the second game machine operates using the backup data generated by the first game machine. A person of ordinary skill in the relevant art would not consider the relationship between the first and second game machines to be a master-slave relationship whereby a master processor *schedules* and *allocates* work to a slave processor. (See, e.g., J. Peterson and A. Silberschatz, *Operating System Concepts*, p. 429 (Addison-Wesley 1983)). Therefore, claims 2 and 18 are further distinguishable over the references at least for this reason.


Accordingly, the withdrawal of the rejections under 35 U.S.C. § 103 is respectfully requested.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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Respectfully submitted,

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